

## Tofacitinib-induced eosinophilia

Keywords: Tofacitinib. Ulcerative colitis. Eosinophilia.

Dear Editor,

Tofacitinib is an oral small molecule JAK inhibitor approved for the treatment of moderate to severe ulcerative colitis (UC). Its efficacy and safety have been demonstrated in phase III clinical trials and supported by real-life data (1).

We report the case of an 18-year-old female with a 1-year diagnosis of left-sided UC, with multiple admissions due to disease exacerbation or infections, refractory to infliximab (with azathioprine) and currently under treatment with vedolizumab and tacrolimus. She was admitted due to a severe disease exacerbation and tofacitinib was initiated because of a previous history of neuropsychiatric side effects to corticotherapy. In the following 6 days, there was no clinical improvement of UC, and serial blood analysis revealed moderate grade persistent peripheral eosinophilia (3000 cells/mm<sup>3</sup>) and acute kidney injury grade 1 KDIGO. Tofacitinib was temporarily suspended, with a rapid normalization of renal function/eosinophil levels. Tofacitinib was restarted 2 days after suspension. However, she developed moderate eosinophilia (2000 cells/mm<sup>3</sup>) again, which was considered an adverse effect (AE) to tofacitinib, leading to its suspension, with eosinophilia resolution. Given the severity of the disease and after a multidisciplinary discussion, high-dose corticotherapy and ustekinumab was started with maintenance therapy every 4 weeks, with the addition of tacrolimus. Clinical and biochemical remission were achieved, and the patient was discharged. Three-months after tofacitinib suspension, there was no recurrence of eosinophilia.

Tofacitinib represents a significant advance in the management of UC patients. The drug has a good safety profile with few related AE. This case aims to warn about an adverse reaction to tofacitinib not reported so far (2), including a multicenter real-life setting recently published by Hernández et al, where eosinophilia was not described, thus emphasizing the rarity of this AE (3). To our knowledge, this is the first case of tofacitinib-induced eosinophilia in the context of UC.

*Conflict of interest: the authors declare no conflict of interest.*

Sara Archer, Daniela Ferreira, Ana Teresa Ferreira, Sofia Ponte, Cidalina Caetano, Marta Salgado, Paula Lago, Isabel Pedroto  
Department of Gastroenterology. Centro Hospitalar Universitário de Santo António. Porto, Portugal

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